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| Atty. Docket No. | 08019.0001500000       | Serial No. 09/988,629    |                   |
| Applicant        | Ciaran BOLGER et al.   |                          |                   |
| Filing Date      | November 20, 2001      | Group: 3737              |                   |

|                      |                    | U.S. PATEN | T DOCUMENTS      |       |              | C ZH        |
|----------------------|--------------------|------------|------------------|-------|--------------|-------------|
| Examiner<br>Initial* | Document<br>Number | Issue Date | Name             | Class | Sub<br>Class | Filing Date |
| FHD                  | 6,032,064          | 02/29/00   | Devlin et al.    |       |              | 10/11/96    |
|                      | 6,032,072          | 02/29/00   | Greenwald et al. |       |              | 01/30/98    |
|                      | 5,813,404          | 09/29/98   | Devlin et al.    |       | -            | 10/20195    |
|                      | 5,792,069          | 08/11/98   | Greenwald et al. |       |              | 12/24/96    |
|                      | 5,458,117          | 10/17/95   | Chamoun et al.   |       |              | 06/09/94    |
|                      | 5,381,804          | 01/17/95   | Shambroom        |       |              | 10/14/93    |
|                      | 5,368,041          | 11/29/94   | Shambroom        |       |              | 10/15/92    |
|                      | 5,320,109          | 06/14/94   | Chamoun et al.   |       |              | 10/25/91    |
|                      | 5,305,746          | 04/26/94   | Fendrock         |       |              | 09/29/92    |

|                    | FOREIGN PATENT      | DOCUMENTS |       |              |                          |
|--------------------|---------------------|-----------|-------|--------------|--------------------------|
| Document<br>Number | Publication<br>Date | Country   | Class | Sub<br>Class | Translation<br>Yes or No |
|                    |                     |           |       |              |                          |

|     | OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)  |
|-----|---|
| FHD | H. Bengi and J.G. Thomas, "Three Electronic Methods for Recording Ocular Tremor," <i>Med. &amp; Biol. Engng.</i> Vol. 1, pp. 171-179, Pergamon Press (1968).  |
|     | Davis Coakley, and John G. Thomas, "The Ocular Microtremor Record and the Prognosis of the Unconscious Patient," <i>The Lancet</i> , pp. 512-515, (March 1977).   |
|     | A.W. Shiri, "Technical Note: Noncontact Method of Measuring the Frequency and Amplitude of the Microtremor of the Eye Through the Closed Eyelid," <i>Med. &amp; Biol. Eng. &amp; Comput.</i> , pp. 18, (1980).                          |
|     | Věroslav Golda, Rudolf Petr, František Čermāk, Vladimir Rozsīval, and Jaromīr Svěrák, "Ocular Microtremor and the Level of Vigilance," <i>Department of Neurosurgery and Division of Experimental Neurosurgery</i> ," pp. 77-82 (1981). |
|     | C. Bolger, N. Sheahan, D. Coakley, and J. Malone, "High Frequency Eye Tremor: Reliability of Measurement," Clin. Phys. Physiol. Meas., Vol. 13, No. 2, pp. 151-159, (1992).   |
|     | N.F. Sheahan, D. Coakley, F. Hegarty, C. Bolgar, and J. Malone, "Ocular Microtremor Measurement System: Design and Performance," <i>Med. &amp; Biol. Eng. &amp; Comput.</i> , pp. 205-212, (May 1993).                                  |



| Atty. Docket No. | 08019.0001-00000     | Serial No. | 09/988,629 |  |
|------------------|----------------------|------------|------------|--|
| Applicant        | Ciaran BOLGER et al. |            |            |  |
| Filing Date      | November 20, 2001    | Group:     | 3737       |  |

|     | OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)  |
|-----|---|
| FHD | Ciaran Bolger, Stana Bojanic, Noirin F. Sheahan, Davis Coakley, and James F. Malone, "Ocular Microtremor in Patients with Idiopathic Parkinson's Disease," <i>Jour. of Neuro. &amp; Psych.</i> , Vol. 66, No. 4:528-531 (April 1999). |
|     | Ciaran Bolger, Stana Bojanic, Noirin F. Sheahan, Davis Coakley, and James F. Malone, "Dominant Frequency Content of Ocular Mirotremor from Normal Subjects," <i>Vision Research</i> , Vol. 39, pp. 1911-1915, (1999).                 |
|     | Ciaran Bolger, Stana Bojanic, Noirin F. Sheahan, Davis Coakley, and James F. Malone, "Ocular Microtremor in Oculomotor Palsy," <i>Jour. of Neuro-Ophth.</i> , Vol. 19, 1:42-45, (1999).   |
|     | Ciaran Bolger, Ph.D., "Ocular Microtremor: Reliability of Measurement, Physiological Variation and Neurogenic Origin," <i>Thesis T.C.D.</i> , pp. 1-240, (1994).  |
|     | Davis Coakley, "The Effect of Anaesthesia on Ocular Microtremor," Minute Eye Movement and Brain Stem Function, CRC Press, pp. 49-89.  |

| Examiner Fadi            | H. Dahbour                    | Date Considered   | 3/10/04  |
|--------------------------|-------------------------------|---|--|
| *Examiner: Initial throu | if reference considered, whet | her or not citation is in conform<br>ce and not considered. Include | nance with MPEP 609; draw line e copy of this form with next |
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| Atty. Docket No. | 08019.0001-00000     | Appin. No. | 09/988,629 |  |
| Applicant        | Ciaran BOLGER et al. |            |            |  |
| Filing Date      | November 20, 2001    | Group:     | 3737       |  |

| U.S. PATENT DOCUMENTS |                    |            |               |       |              |                            |
|-----------------------|--------------------|------------|---------------|-------|--------------|----------------------------|
| Examiner<br>Initial*  | Document<br>Number | Issue Date | Name          | Class | Sub<br>Class | Filing Date If Appropriate |
| FHD                   | 6,271,915 B1       | 08/07/02   | Frey et al.   |       |              | 09/18/00                   |
|                       | 4,836,219          | 06/06/89   | Hobson et al. |       |              | 07/08/87                   |
|                       | 4,572,199          | 02/25/86   | LaCourse      | 1     |              | 11/30/84                   |

|                   | FOREIGN PATE | NT DOCUMENT | 'S    |              |                          |
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| OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) |  |                                |  |  |
|--|--|--------------------------------|--|--|
| FHD  | PCT Notification of Transmittal of the International Search<br>International Search Report, 08/06/02 | Report or the Declaration; PCT |  |  |
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| Examiner   | Fadi H. Dahbour   | Date Considered 3/10/04 TECHNOLOGY CENTER R3700   |  |  |  |
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| Form PTO 1449 Patent and Trademark Office - U.S. Departr |   | atent and Trademark Office - U.S. Department of Commerce  |  |  |  |

## **INFORMATION DISCLOSURE CITATION**

| Atty. Docket No.     | 08019.0001-00000                            | 7                   | Appln. No.        | 09/988,629     |              | OIPE                     |
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| Applicant            | Ciaran BOLGER et al                         |                     |                   |                |              | 4                        |
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| Examiner<br>Initial* | Document<br>Number                          | Issue Date          | Name              | Class          | Sub<br>Class | Filing Date              |
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|                      | Document<br>Number                          | Publication<br>Date | Country           | Class          | Sub<br>Class | Translation<br>Yes or No |
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|                      |   |                     |                   |                |              |                          |
|                      | OTHER DOCUMENT                              | rs (Including Au    | thor, Title, Dat  | e, Pertinent P | ages, Etc    | .)                       |
| FHA                  | Ciaran Bolger, Ph.D<br>6, pp.1201-1206, (Ju |                     | licrotremor in Bi | rain Stem Deat | h," Neuro    | surgery, Vol. 44 No.     |

| FHD | Ciaran Bolger, Ph.D. et al., "Ocular Microtremor in Brain Stem Death," <i>Neurosurgery</i> , Vol. 44 No. 6, pp.1201-1206, (June 1999)  |
|-----|--|
| FHD | Ciaran Bolger, Ph.D. et al., "Ocular Microtremor (OMT)" A New Neurophysiological Approach to Multiple Sclerosis, <i>J. Neurol Neurosurg. Psychiatgry</i> , 68:639-642 (2000) |
|     |  |
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| Examiner    | Fadi H. Dahbo  | Date Considered 3/10/04                                 |  |  |  |
|-------------|--|---|--|--|--|
| *Examiner:  | Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |   |  |  |  |
| Form PTO 14 | 49 Pat   | tent and Trademark Office - U.S. Department of Commerce |  |  |  |

## **INFORMATION DISCLOSURE CITATION**

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| Atty. Docket No. | 08019.0001-00000     | Appln. No. | 09/988,629   | Co             |
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| Filing Date      | November 20, 2001    | Group:     | Not Assigned | h d            |
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|                      |                    | U.S. PATENT | DOCUMENTS |       |              |                            |
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| Examiner<br>Initial* | Document<br>Number | Issue Date  | Name      | Class | Sub<br>Class | Filing Date If Appropriate |
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| OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) |   |  |  |  |
|--|---|--|--|--|
| FHD  | "New Clinical and Pathophysiological Aspects of Neuromonitoring," Stana Bojanic and Ciaran Bolger, Program of the First Workshop-Neurosurgery, Neuroanesthesia and Critical Care Medicine, December 11/12 <sup>th</sup> ; 1998 in Halle/S, Germany. |  |  |  |
|  |   |  |  |  |
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| Examiner   | Fadi  | Н.       | Dahbour                | Date Considered                                      | 3/10/04  |
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| 100              | DEC DE TINFORMAT     | TION DISCLOSURE | CITATION   | OMB No. 0651-0011 |
|------------------|----------------------|-----------------|------------|-------------------|
| Atty. Docket No. | 08019.8001 ASSOC     | Appln. No.      | 09/988,629 | DEOSIVED          |
| Applicant        | Ciaran BOLGER et al. |                 |            | PECEIVED          |
| Filing Date      | November 20, 2001    | Group:          | 3737       | DEC 1 4 2003      |

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| Examiner<br>Initial* | Document<br>Number | Issue Date | Name                | Class | Sub<br>Class | Filing Date If Appropriate |
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|                    | FOREIGN PATE        | NT DOCUMENT | s     |              |                          |
|--------------------|---------------------|-------------|-------|--------------|--------------------------|
| Document<br>Number | Publication<br>Date | Country     | Class | Sub<br>Class | Translation<br>Yes or No |
| -                  |                     |             |       |              |                          |

|     | OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)  |
|-----|---|
| FHD | Davis Coakley; "The Ocular Microtremor Record and the Prognosis of the Unconscious Patient;" The Lancet; March 5, 1977; pp. 512-515.  |
|     | Alexander Spauschus; Jon Marsden; David M. Halliday; Jay R. Rosenberg; Peter Brown; "The Origin of Ocular Microtremor in Man;" Experimental Brain Research; 1999; pp. 556-562.  |
|     | Veroslav Golda; Rudolf Petr, Frantisek Cermak, Vladimir Rozsival; Aromir Sverak; "Ocular Microtremor and the Level of Vigilance; pp. 77-83.   |
|     | W.L. Davies; G.R. Plant; "A Transducer for the Clinical Recording of Ocular Microtremor;" Volume 2, No. 5; September, 1978; pp. 249-251.  |
|     | Peter Brown, M.D.; "A New Clinical Technique for Demonstrating Changes in Eye Acceleration During Horizontal Saccades in Patients with Partial Internuclear Ophthalmoplegias;" Journal of Neuro-Ophthalmology; Volume 18, No. 1; 1988; pp. 36-39.                           |
|     | W.L. Davies; G.R. Plant; "The Recording and Analysis of Human Ocular Microtremor;" The Journal of Physiology; December, 1977; pp. 21P-22P.  |
|     | D. Coakley; J.G. Thomas; "The Effect of Age and Eye Position on the Normal Ocular Microtremor Record;" Proceedings of the Physiological Society; September, 1976; pp. 260P-261P   |
|     | Dr. Davis Coakley; Dr. John D . Thomas; "Ocular Microtremor: A Neurogenic Phenomenon;" Electromyography and Clinical Neurophysiology; 1979; Volume 19, No. 4; pp. 325-328.  |
|     | S. Bojanic; T. Simpson; C. Bolger; "Ocular Microtremor: A Tool for Measuring Depth of Anaesthesia?;" British Journal of Anaesthesia; 2001; Volume 86, No. 4; pp. 519-522.   |
|     | Ciaran Bolger; Stana Bojanic; Noirin F. Sheahan; Davis Coakley; James F. Malone; "Effect of Age on Ocular Microtremor Activity;" Journal of Gerontology: Medical Sciences; 2001; Volume 56A, No. 6; pp. M386-M390.  |
|     | L.Y. Abakumova; A.R. Shakhnovich; J.G. Thomas; "An Investigation of the Correlation between Abnormal Patterns of Ocular Microtremor and an Abnormal Pupil Reflex in Neurological Patients; Journal of Neurological Sciences; December, 1975; Volume 26, No. 4, pp. 469-477. |
|     | M. Michalik; "Spektralanalysen des okularen Mikrotremors bei Hirnstammfunktionsstorungen;" Z. EEG-EMG; No. 18; 1987; pp. 20-26.   |

## **INFORMATION DISCLOSURE CITATION**

| Atty. Docket N  | lo. 08019.0001-00000      | Appln. No. 09/988,629                            |
|---|---------------------------|--|
| Applicant   | Ciaran BOLGER et al.      |  |
| . Filing Date   | November 20, 2007 O \ P E | Group: 3737                                      |
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| Examiner  | -adi H. Datbour           | Date Considered 3 /10/04                         |
| *Examiner: Initial if reference considered with the conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |                           |  |
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